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ABSTRACT

The study investigated job-related outcomes experienced by young adults self-identified as handicapped, selected from the 1980 Sophomore cohort of the High School and Beyond data set. The study examined aspects of transition from school to work in the first job after high school and group differences associated with these variables. Also examined was the incidence of dropping out by handicapped individuals. Results indicated there were significant differences in employment status and the occupational job clusters in which former students became employed, with those identifying themselves as learning disabled or hearing or speech impaired most often in full-time employment and least often in postsecondary educational programs. The health impaired were least likely to be employed. Findings on dropout rates among the handicapped students varied considerably, with the rate of some groups (learning disabled and hearing impaired) far exceeding the rate of their nonhandicapped peers. Results supported previous findings that limited education and unemployment are likely outcomes for mildly handicapped students. Results have implications for transition models such as the three bridge model of the Office of Special Education and Rehabilitation and suggest a current inability of the service delivery structure to assist mildly handicapped students in their transition to postsecondary education or work. (Author/DB)

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Transition Issues: Post-School Employment Patterns of Handicapped and Nonhandicapped Graduates and Dropouts

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Abstract

The purpose of this study was to examine selected job-related outcomes experienced by young adults with specific handicapping conditions in the 1980 Sophomore cohort of the High School and Beyond (HSB) data set. The handicapped sample in HSB was composed of self-reported data on students who had primarily mild or borderline handicapping conditions and were most likely the students who would have been mainstreamed into all secondary-level programs leading to a high school diploma. This study examined selected aspects of transition from school-to-work in the first job after high school and the group differences associated with these variables. Secondarily, this study examined the incidence of dropping out among individuals who identified themselves as having one specific handicapping condition in the HSB survey instrument. Results indicated there were significant differences in employment status and the occupational job clusters in which former students became employed, and several additional labor market measures. Findings on dropout rates among those students with specific handicapping conditions vary dramatically, with the rate of some groups far exceeding the rate of their nonhandicapped peers.

Introduction and Overview

Regardless of the debate that centers on the growing imbalance between education and work, the prevailing opinion and general rhetoric suggest that those who attain more and "better" schooling are in an advantageous position to obtain higher earnings, hold jobs with higher prestige, and are likely to be employed more often than individuals with lower educational attainment (Borus, 1982; Jencks, Bartlett, Corcoran, Crouse, Eaglesfield, Jackson, McClelland, Mueser, Olneck, Schwartz, Ward, & Williams, 1979; Levin, 1972; Rumberger, 1984). Sociological research that embraces status attainment theory has demonstrated that education, occupation, and earnings are closely intertwined. As a result, the high school years may be considered an initial, critical phase of a life-long process of socioeconomic achievement (Featherman, 1980). Although most research does not study the issue of handicap status directly, the importance of school in influencing later life goals should not be considered any less important for youth with handicaps than for nonhandicapped youth.

Though the ideals of equal educational opportunity were at the foundation of historic special education legislation, in retrospect a great number of secondary-aged youth have not attained parity with their peers (The National Coalition of Advocates for Students, 1985). Despite improvements and

expansion in services for most students with disabilities since the passage of Public Law 94-142, the provision of appropriate educational services remains problematic for a substantial number of students with educational handicaps. These students, with their history of inadequate educational preparation, are more seriously handicapped as they "age-out" of school because of their chronic dependence on society and their uncertain future in the job market (Halpern, 1973; Hasazi, Gordon, & Roe, 1985; Mithaug & Horiuchi, 1983; Porter, 1982; Rusch, 1986; Wehman, Kregel, & Zoller, 1984; Wilcox & Bellamy, 1981).

In order to improve the secondary school curriculum that prepares youth for employment, it is critical to begin to identify significant characteristics of individuals, schools, and communities associated with this passage. At the current time, there is an acute shortage of reliable data that include youth with handicaps. Along with this shortage, there is a need for information concerning the rate of attrition and characteristics of dropouts who are handicapped. There is also a need to analyze extant studies that include students identified as handicapped. The current popularity of follow-up studies coincides with the federal special education transition initiative, yet these studies have primarily focused on local and state concerns, and often times, only cover selective high incidence handicaps.

The primary purpose of this research was to investigate

selected post-school employment patterns of those high school graduates and dropouts who identified themselves as handicapped. Specifically, this research examined by descriptive and inferential statistical methods those factors associated with rates of job participation, kind of job held, hours worked per week, income earned, and duration of employment in the first job after high school.

This research used one of the largest and most current national data resource available to study the transition of secondary-aged youth from school-to-work or postsecondary education. The data obtained for this research is from the High School and Beyond (HSB) second follow-up data files, part of the Center for Statistics (formerly the National Center for Education Statistics' [NCES]) National Longitudinal Studies program on the educational and occupational experiences of high school-aged youth.

Procedure

Extant Data Base

High School and Beyond (HSB) is a national longitudinal study initiated in 1980 for the National Center for Education Statistics (NCES) by the National Opinion Research Center at the University of Chicago. Students who were sophomores and seniors in 1980 were selected using a two-stage, probability sample. The sophomore cohort, as they move from school-to-work or postsecondary education, formed the subject pool for this study, since there was more descriptive high school-related data and subsequent information on graduation status (National Center for Education Statistics, 1984).

Sampling Scheme

According to Owings & Stocking (1985), there are three details of the sampling scheme that limit the definition of handicapped students in the data. First, the student population for the survey was defined as students who were enrolled in high school programs leading to graduation and a diploma. This eliminated from the sampling frame all students who were in non-degree programs (leading, for example to attendance certificates or certificates of completion) and thereby eliminated one subset of students often included in definitions of handicapped.

Second, although attempts were made to accommodate such problems, most students had to be able to read and to fill out the questionnaire themselves. Thus, a second subset was also largely excluded. Third, because NCES was concerned that no students be made uncomfortable by participating, any students drawn into the sample who were considered by teachers to be "at risk" were excluded. This may have eliminated some of the students with emotional or mental handicaps. In addition, the estimated 39,000 secondary school students in residential schools for exceptional students were not eligible for the sample. This is also true of the multihandicapped, mentally retarded, and seriously emotionally disturbed who were enrolled full-time in special education programs not leading to a diploma.

Finally, with regard to the issue of dropouts and sampling constraints it is important to note that High School and Beyond's attrition rate clearly underestimates the number of

dropouts usually reported in the literature (Novak & Dougherty, 1979; Plisko & Stern, 1985). This is due largely to the following reasons. First, the initial data gathering was begun with sophomores in the spring of 1980 and followed up when they were seniors in the spring of 1982. This means that some members of the class of 1982 had dropped out prior to the first survey and some failed to complete their senior year (Pallas & Verdugo, 1986; Wehlage & Rutter, 1984). In addition, approximately 12% of the original sample were absent on the survey day (National Opinion Research Center, 1980). Absenteeism among potential dropouts is well documented and often times used in surveys and predictive instruments to identify potential dropouts. Therefore, a true picture of the number of dropouts surveyed may be limited.

Definition of Handicap

One limitation worth noting was the definition of handicap used in HSB. Definitions, as a whole have plagued the field of special education for decades and lack of consistancy in usage has complicated numerous studies and tabulation efforts (General Accounting Office, 1981; Kiernan & Bruininks, 1986)). In contrast to the P.L. 94-142 definitional guidelines, students in the sample were asked (in self-administered surveys) whether they had any of seven specific handicaps; whether they had a condition that limited the kinds or amount of work or education they could do, and whether they participated in special programs for the physically or

educationally handicapped. The following specific handicapping conditions were considered: specific learning disabilities, visual handicaps[1], hard of hearing, deafness, speech disabilities, orthopedic handicaps, and other health impairments. For the purpose of this study, only those students who selected one specific handicapping condition were considered. In addition, following the lead of Gregory, Shanahan, & Walberg (1984), the two categories of deaf and hard of hearing were merged into the more inclusive category, hearing impaired. Table 1 presents the sample sizes of the groups under study in the data set.

Insert Table 1 about here

Results

Incidence of Dropping Out Among Individuals with Specific Handicapping Conditions

Data from HSB, regarding dropping out, note that specific groups of individuals, such as those who identified themselves as learning disabled, hearing, health, and speech impaired had significantly higher attrition rates (37%, 28%, 26%, and 23%, respectively), than the nonhandicapped sample (reported at 18.6%). As mentioned earlier, these rates should be considered a conservative estimate of the dropout rate of all respondents due to the timing of the study. A percentage bar chart of the data on the graduation status of individuals with specific

handicapping conditions appears in Table 2.

Insert Table 2 about here

Employment Status for Individuals with Specific Handicapping Conditions

There was a relationship between employment status and specific handicapping conditions. Those who identified themselves as learning disabled, hearing, and speech impaired were more often found in full-time employment. These were the same individuals that reported the least postsecondary educational involvement. In addition, persons reporting learning disabilities, hearing, speech, and health impairments often identified themselves as unemployed. Only individuals with health impairments were found to be more frequently reported in the category "not in the labor force". The Cramer's V for the sample was 0.08. A percenatage bar chart of this relationship can be found in Table 3.

Insert Table 3 about here

Duration of Employment, Hourly Earnings, and Hours Worked per Week

The ANOVAs performed on the sample of individuals who

identified a specific handicapping condition were found to differ significantly in hourly earnings and hours per week worked on the first job but not in duration of employment (see Table 4). Results of the Scheffe post-hoc comparison test indicated that individuals who identified themselves as either learning disabled or orthopedically impaired had significantly higher earnings over individuals with health, visual, and speech impairments. Only those individuals with hearing impairments did not figure prominently in this test of significance. With regard to hours worked per week, the only significant association was that individuals with hearing impairments worked longer hours than persons with visual and orthopedic impairments. All other persons with handicaps remained non-significant.

Insert Table 4 about here

Discriminant Function Analysis

If a significant ANOVA was found between the four broad groups and additionally with the specific handicapping conditions, the question of which variables discriminate among the groups remained. Tatsuoka (1971) recommends that a discriminant analysis procedure be used as a follow-up to determine the best linear combination of variables (i.e., a weighted sum) which will maximally differentiate the groups in question. The procedure provides a ranking of the groups in

terms of a linear combination of variables, and also provides individual weights assigned to the different variables. The pattern of weights were examined to determine which variables contributed the most (or the least) and in which direction, to discriminating among the groups.

Before the analysis was initiated the categorical variables for employment status and first job occupational title had to be transformed to a series of dummy coded variables [8]. In addition, in an attempt to partial out the effects of background variables, the following background, contextual, and school achievement variables were statistically controlled in the analyses: gender, socioeconomic status, ethnicity, type of high school community, type of high school program, postsecondary educational involvement, test composite score, high school grade point average, and amount of time spent on homework per work.

Discriminating Nonhandicapped and Handicapped Graduates and Dropouts

The discriminant analysis for differentiating nonhandicapped and handicapped dropouts and graduates yield two significant discriminant functions. The composition of this function as well as group means on this function are reported in Table 5 and graphically illustrated in Figure 1. Using a stepwise method, the four labor market variables of full-time employment, part-time employment, subprofessional

jobs and hours worked per week were found to be significant discriminators.

Insert Table 5 about here

With regard to the first discriminant function, the results suggest several findings. First, the standardized canonical coefficients indicated that the nonhandicapped and handicapped dropouts differed most from the nonhandicapped and handicapped graduates on the linear combination of the set of variables defined by the four labor market variables listed in the first column of Table 5. It was this set of variables that maximally differentiated the four groups under consideration. Second, the positive graduate group means on the first discriminant function illustrated that the graduates were higher on all the discriminant function variables that were weighted positively. For example, the nonhandicapped and handicapped graduates were more likely to be in subprofessional positions (clerical & sales), as opposed to non-subprofessional positions, more likely to be in part-time employment vs. non-part-time employment and less likely to be working many hours per week (as denoted by the negative sign). Overall, the first discriminant function had a moderate size canonical correlation (canonical correlation = .22, $p < 0.0001$). However, before any functions were removed, Wilks' lambda was 0.952. This indicated that little discriminating power existed in the variables being examined.

The second significant discriminant function for the nonhandicapped and handicapped graduates and dropouts had a uniquely different configuration as depicted in the second column of Table 6 and graphically illustrated in Figure 1. First, the standardized canonical coefficients indicated that the handicapped differed most from the nonhandicapped on the linear combination of the set of variables defined by the four labor market variables identified above. Second, the positive means for the nonhandicapped group on the discriminant function illustrated that the nonhandicapped were higher on all the discriminant function variables that were weighted positively.

Insert Figure 1 about here

For example, the nonhandicapped were more likely to be in subprofessional positions, as opposed to non-subprofessional positions (such as, operatives, laborers, service sector trades, etc) and less likely to be in part-time employment. Overall, this second discriminant function had the same negligible canonical correlation as the first discriminant function discussed earlier (canonical correlation = 0.04, $p < 0.0001$). Figure 1 graphically illustrates the spatial positioning of the two discriminant functions derived from plotting the group centroids.

Discussion

The purpose of this research was to study selected post-school employment patterns of young adults with specific handicapping conditions. The findings of the study serve to both confirm and extend previous evidence in the literature on the educational and occupational performance of selected groups of young adults with mild handicaps. Based on the results of this study, it is apparent that certain patterns exist in selected combinations of employment measures that suggest lower levels of achievement and performance among individuals with handicaps in comparison to individuals without handicaps.

Since this study involved a sample of self-reported youth with various handicaps, limited generalizations from the conclusions can be drawn about the actual educational and employment benefits and limitations experienced by those individuals diagnosed as handicapped by trained clinicians and/or practitioners. However, the data appear to be representative for nearly all the specific groups on the basis of detailed examination of supplemental cognitive, psychological, and teacher supplied data (Owings & Stocking, 1985).

Although the analyses focused on only the first job after high school, the resulting patterns may well affect the life-long aspirations of individuals in these various groups. For example, according to the findings, young adults graduating or dropping out of high school were not homogeneous

in their labor market performance. The overall findings of this study suggest that individuals who identified themselves as mildly handicapped only made moderate adjustment to the labor market.

Dropping Out and Students with Handicaps

Within this sample, the findings suggest that graduation status exerts a stronger influence than handicap status on the differing patterns of participation and performance in labor market indicators. For example, the dropouts, regardless of handicap status were more likely to be unemployed or not in the labor force after leaving high school in comparison to their graduate peers. This is illustrated in Table 2 using a percentage bar chart to depict the results of the employment question. It is important to remember that the categorical choices made by the respondents do not necessarily conform to predetermined definitions. It is possible that the choice "not in the labor force" also includes some individuals who were unemployed. The choice of a category was purely an individual one.

The implications of this finding for education and youth employment policy and practice are to establish a more systematic procedure for identifying potential dropouts and follow through in providing comprehensive programs to retain students in school. Previous studies show that dropout-prone students need to be identified early enough in their school careers so some form(s) of positive intervention can be initiated before students enter high school (Novak &

Dougherty, 1979; Weber, 1986). In addition to more systematically identifying potential dropouts prior to high school entry, it is vital that more specialized guidance and counseling services be available to these students prior to their entry into high school, at their point of entry into high school, and continually throughout their high school careers (Weber, 1986).

It seems almost inconceivable that there could be such a dramatic attrition rate when it is possible to discriminate potential dropouts from graduates with 75% accuracy as early as the third grade (Lloyd, 1978). However, the fact remains that it does occur and the figures on attrition among students with handicaps indicate that their dropout rate is much higher than their nonhandicapped peers.

In addition, educators should be made aware of the factors which might lead students to drop out. Rarely is such information collected and systematically used for remedial programming and counseling. For special educators, it is imperative that they realize that students who are mildly handicapped and capable of being mainstreamed are at greatest risk of dropping out, especially those identified as learning disabled, hearing, speech, and health impaired.

One repercussion of integration, especially at the secondary school level, appears to be the relative absence of support and monitoring that may serve as an important deterrent to dropping out. As we move to normalize the educational and social opportunities of students who are

handicapped we may also lose an inordinate number of them in the process. Unfortunately, it has become a normal occurrence in our high schools to lose one out of every four students and the evidence appears to indicate that number is even higher for those identified as handicapped. It may be necessary to re-evaluate the effectiveness of IEP's (and the planning process) and the degree to which they provide the individualized attention they were originally intended to support. The early introduction of goals, objectives, and student outcomes that foster the process of transition from school-to-work combined with methods of student retention appear justifiable and long overdue.

While past research has spent much time on causes and correlates of dropping out, Wehlage & Rutter (1986) argue that the focus of new research should be directed toward studying the "institutional character of school and how this affects the potential dropout" (p. 376). It may be reasonable to assume that these characteristics, such as policies and practices that effect school's "holding power", have some relationship to the quality of special services offered to youth with handicaps, since they both exhibit "high risk" characteristics.

Implications for Transition

From the perspective of employment, there is ample data available from this study and others using HSB that indicates limited education and unemployment are likely outcomes for many young people with mild handicaps and especially for those

who drop out of school. This fact, coupled with considerable evidence in the literature suggests that these youth will not make any major gains in the labor market unless there is a concentrated effort to identify and introduce interactions that will enhance the employment prospects of young people (Novak & Dougherty, 1979; National Association of Rehabilitation Facilities, 1986).

The meaning of handicap, as operationally defined in HSB represents several distinctly different subgroups each with their own unique characteristics. For example, the unemployment and "not in the labor force" rates of young people with learning disabilities (10.5% and 41.6%, respectively) far exceeds the unemployment and "not in the labor force" rates of individuals with orthopedic handicaps (4.7% and 35.2%, respectively). In addition, only 19% of young adults with learning disabilities go on to either part- or full-time postsecondary education. These are only two dimensions of how individuals with various handicapping conditions differ on critical transition issues and a vivid example of how certain young adults with specific handicapping conditions appear to be more prone to a variety of hardships in contrast to others with specific handicapping conditions. What may be inferred from these results is that many more persons with specific handicapping conditions and differing graduation status could be working and/or attending postsecondary educational institutions than are currently.

In order to provide for greater employment options and

enhance the enrollment in postsecondary education there must be a committment to supporting these goals. Service delivery systems that focus on employment and further education must be expanded for young adults who are mildly handicapped. In addition, teachers, counselors, and other professionals must be trained to provide direct transition-related services, along with changes within schools that allow for flexible options and alternatives that may include greater community and outside agency involvement. The prevailing opinion is that curriculum changes being proposed and some already in effect prepare students with disabilities to meet criteria for finishing school, and fail to include goals related to employment or adult functioning after leaving school (Wilcox & Bellamy, 1981).

Another Look at Transition Models

Models that have been proposed to examine the transition process assume that individuals with handicaps will graduate, or at least receive some support as part of their individualized secondary-level educational program (Halpern, 1985; Will, 1984). This assumption needs to be re-evaluated in light of the higher than expected attrition rates documented by the findings of this study and various other studies in recent years (Edgar, Levine, & Maddox, 1985; Harnisch, Lichtenstein, & Langford, 1986; Hasazi et al., 1985; Hippolitus, 1980; Levin, Zigmond, & Birch, 1985; Plisko & Stern, 1985).

The conceptualization of transition as a bridge, suggested

by McDonnell, Wilcox, & Boles (1983) and Will (1984), is particularly poignant in view of the disruptive effects of dropping out.

> Like a bridge, transition is only as strong as the foundation on either side (the quality of school preparation on one side and the quality of adult service opportunities on the other) and the construction of the span itself (the planning process). If any of these components are inadequate, the chance of the student success in the community is greatly reduced.(McDonnell, Wilcox, & Boles, 1983) (p.2)

The degree to which young people rely on schools to aid in the transition phase of their development is seriously curtailed under such abrupt termination. Thus, the dependability of schools in providing some form of stability in the transition process is seriously in question for thousands of individuals nation-wide. A modified transition model, which includes options and pathways for early school leavers should be considered. This modified transition model could potentially intertwine the school, community, and social networks in providing the best services for this segment of the population.

The widely cited transition model proposed by the Office of Special Education and Rehabilitative Services (OSERS), suggests three bridges emanating from high school. A brief description of these pathways provides some indication of their shortcomings with regard to selected groups of young adults with handicaps. The first bridge, labeled "transition without special services," refers to the use of generic services available to anyone in the community. Postsecondary

education, such as community college, is mentioned as a prime example of this type of service (Halpern, 1985).

For individuals who dropout, regardless of their handicap status, this route appears to be thwarted by the lack of credentials and other barriers to admission. The likelihood of creating a permanent sub-culture of handicapped and disadvantaged individuals who are unable to access educational services after high school (in spite of legislative mandates) appears probable. Presumably, in view of these barriers OSERS, for the last two years, has issued a series of requests for proposals for postsecondary education programs for individuals with learning disabilities (Office of Special Education and Rehabilitative Services, 1984).

"Transition with time-limited services" refers to specialized, short-term services, where the presence of a disability is usually required in order to qualify a person for access to the service. Vocational rehabilitation is offered here as an example (Halpern, 1985). Here again, the use of formal agencies by dropouts, regardless of handicap status, is generally avioded by those who have had unsuccessful involvement and an incomplete history with a primary agency, high school. One could reasonably speculate that there is little or no further communications between school personnel and adult service agencies once the student drops out (Steinberg, Blinde, & Chan, 1984). In addition, by their own admission, state vocational rehabilitation agencies serve only a fraction of the eligible persons between the ages

of 16 and 24 (National Association of Rehabilitation Facilities, 1986). The implication here is that there is a serious gap in services for many young adults who find it difficult to connect with work or further education.

Schools have been reluctant to extend their control and purse-strings beyond traditional physical and grade-level boundaries. Additionally, rehabilitation agencies suffer from financial shortages and lack of know-how (Rusch, Mithaug, & Flexer, 1986). It is imperative that some agency or group representing agencies determine responsibility and provide supplemental assistance in job placement, follow-up, or support in finding an appropriate postsecondary educational environment. Employment-related assistance could be accomplished locally through the Job Training Partnership agencies (JTPA), yet few initiatives occur without collaborative agreements and prior planning. Even with the option of using JTPA, Mann (1985) warns that it is simply not enough:

> To put an at-risk young person into a work-experience program or an on-the-job training situation. There needs to be a link between learning and earning. There needs to be experience with both schooling and paid employment. Some of the success of JTPA program (nee Youth Employment Demonstration Program [YEDPA], nee Comprehensive Employment and Training Act [CETA]) springs from the connection. (p. 318)

This option must be considered more seriously and incorporated into the agenda for transition improvement.

The third bridge has been labeled "transition with ongoing

services." The supported-work model of competitive employment could be an example of this type of ongoing service since it is characterized by long-term follow-up training (Lagomarcino, 1986). However, Halpern (1985) argues that this bridge does not represent a widely existing service delivery system at present when the goal of transition is employment (Halpern, 1985). Many of the federally funded demonstration projects can be classified under this category. Once again, this avenue appears an unlikely option for young adults with mild handicaps who are also early school leavers, since it is customarily reserved for individuals who are more severely handicapped and requires intensive support services for unspecified periods of time. Few programs (except for a rare number of specially designed alternative school programs) currently exist that serve individuals with mild handicapping conditions.

In view of the findings and the apparent inability of our service delivery structure to assist individuals with mild handicaps, increasing attention must be focused on the lack of appropriate options for such individuals to transition from high school to postsecondary education or work. This lack of closure on the transition process, according to Ianacone & Tilson (1983) and Wilcox & Bellamy (1981), often stems from the school's focus on academic remediation and meeting graduate requirements rather than on providing marketable skills and securing employment.

Gould & Bellamy (1985) argue that transition is not just a problem of service delivery. There are less formal arrangements that involve graduating from school to an appropriate job as a result of employer connections established during the school's vocational training efforts, family and friendship support networks, and personal efforts. However, in many instances, high schools, as sending agencies, are unable to provide for a successful first step. This is most apparent with the case of handicapped dropouts. Maddox & Edgar (1984) suggest that the "hand-off" is the easiest element of the transition service to improve, provided that both sending and receiving agencies can agree on a process for exchanging information about clients. Unfortunately, the planners did not consider the most basic of options open to the individual who may be frustrated and in need of an immediate escape. By acting early, schools could, in collaboration with other agencies, provide continuity of services and conceivably decrease the high incidence of dropping out. Narrowly conceived options and few safeguards have created a fractionalized system that allows for neglect and lack of follow-up of students who do not succeed by traditional standards.

In summary, it should come as no surprise that young workers generally lack skills and experience, and therefore encounter difficulty in the labor mrket (Borus, 1982; Levin, 1983). The overall findings of this study suggest that

respondents who are handicapped have only made moderate adjustments to the labor market. They are not, however a homogeneous group who have similar transition patterns. An examination of youth employment status reveals moderate variations in labor force participation rates, type of occupational involvement, hourly earnings, and hours worked per week.

A major strength of the results reported in this research is that they occur using the most current nationally representative sample attainable. Regardless of the absence of key handicaps, such as mental retardation and emotional disorders, there are distinctly different patterns reported in this investigation that support related studies on the varied success of transition experiences.

Footnotes

[1] According to the Center for Statistics, students who identified themselves as visually handicapped appear to be over-represented in the sample. This may be the result of a general misintereptation on the part of students, many of whom may have only had mild visual problems correctable by glasses or lenses. The Center for Statistics advises caution in the use of this category.

[2] For the purpose of conducting the discriminant function the first job classification needed to be transformed into a series of four dummy-coded variables: (1) Professional & Managerial Occupations, (2) Subprofessional Occupations (clerical & sales), (3) Farm-related Occupations (farmers & farm labor), (4) Skilled Manual Workers (craftsmen, operatives, & transportation operatives. The reference group consisted of those who were in service trades and jobs in private households.

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Table 1

Sample Size of Groups Under Study in High School and Beyond

Groups	Sample Size
Nonhandicapped Dropouts	1223
Nonhandicapped Graduates	6620
Handicapped Dropouts	920
Handicapped Graduates	4000
Learning Disabilities	324
Visually Impaired [1]	1548
Hearing Impaired	301
Speech Impaired	198
Orthopedic Impaired	134
Health Impaired	920

Table 2

A Percentage Bar Chart of the Graduation Status of Individuals with Specific Handicapping Conditions in High school and Beyond

			FREQ	CUM. FREQ	PERCENT	CUM. PERCENT
LEARNING DISABLED	DROPOUT	*******	116	116	36.59	36.59
	GRADUATE	**********	201	317	63.41	100.00
VISUAL IMPAIRED	DROPOUT	***	268	268	14.90	14.90
	GRADUATE	**********	1531	1799	85.10	100.00
HEARING IMPAIRED	DROPOUT	******	105	105	28.30	28.30
	GRADUATE	**********	266	371	71.70	100.00
SPEECH IMPAIRED	DROPOUT	*****	53	53	23.35	23.35
	GRADUATE	**********	174	227	76.65	100.00
ORTHO IMPAIRED	DROPOUT	****	31	31	19.14	19.14
	GRADUATE	**********	131	162	80.86	100.00
HEALTH IMPAIRED	DROPOUT	*****	231	231	25.47	25.47
	GRADUATE	**********	676	907	74.53	100.00

20 40 60 80

PERCENTAGE

Table 3

A Percentage Bar Chart of the Employment Status of Individuals with Specific Handicapping Conditions in High School and Beyond

			FREQ	PERCENT	CUM. PERCENT
LEARNING DISABLED	FULLTIME JOB	**********	119	41.61	41.61
	PARTTIME JOB	********	49	17.13	58.74
	UNEMPLOYED	*****	30	10.49	69.23
	NT LABOR FORCE	**********	88	30.77	100.00
VISUAL IMPAIRED	FULLTIME JOB	**********	567	33.49	33.49
	PARTTIME JOB	**********	543	32.07	65.56
	UNEMPLOYED	**	65	3.84	69.40
	NT LABOR FORCE	**********	518	30.60	100.00
HEARING IMPAIRED	FULLTIME JOB	**********	136	41.34	41.34
	PARTTIME JOB	**********	79	24.01	65.35
	UNEMPLOYED	****	27	8.21	73.56
	NT LABOR FORCE	**********	87	26.44	100.00
SPEECH IMPAIRED	FULLTIME JOB	**********	90	41.67	41.67
	PARTTIME JOB	**********	46	21.30	62.96
	UNEMPLOYED	****	16	7.41	70.37
	NT LABOR FORCE	**********	64	29.63	100.00
ORTHO IMPAIRED	FULLTIME JOB	**********	46	30.87	30.87
	PARTTIME JOB	**********	49	32.89	63.76
	UNEMPLOYED	**	7	4.70	68.46
	NT LABOR FORCE	**********	47	31.54	100.00
HEALTH IMPAIRED	FULLTIME JOB	**********	285	33.18	33.18
	PARTTIME JOB	**********	227	26.43	59.60
	UNEMPLOYED	****	69	8.03	67.17
	NT LABOR FORCE	**********	282	32.83	100.00

10 20 30 40

PERCENTAGE

Table 4

Results of the ANOVA's Performed on Duration of Employment, Hourly Earnings, and Hours Worked per Week on the First Job by Specific Handicapping Condition in High School and Beyond

	LEARNING DISABLED (LD)		VISUALLY IMPAIRED (VH)		HEARING IMPAIRED (HP)		SPEECH IMPAIRED (SI)		ORTHOPEDICALLY IMPAIRED (OH)		HEALTH IMPAIRED (HI)		F-VALUE	DEGREES OF FREEDOM	p <	SCHEFFE POST HOC TEST
VARIABLE	MEANS	SD	MEANS	SD	MEANS	SD	MEANS	SD	MEANS	SD	MEANS	SD				
First Job: Duration of Employment (in years)	1.46	1.42	1.39	1.39	1.35	1.39	1.49	1.43	1.44	1.42	1.35	1.36	0.54	5 , 3169	0.7429	NS
First Job: Hourly Earnings (in dollars)	4.34	2.70	3.83	2.00	4.05	2.25	3.88	2.06	4.47	3.16	3.98	2.29	3.69	5 , 2876	0.0025	LD, OH > HI, VH, SI
First Job: Hours Worked Per Week	35.07	14.99	31.50	14.25	36.43	15.99	33.91	15.87	30.87	15.45	32.65	14.29	7.52	5 , 3117	0.0001	HP > VH, OH

NS = Not significant

Table 5

Discrimination of Nonhandicapped and Handicapped Graduates and Dropouts by Significant Selected Labor Market Variables

Labor Market Variables	Standardized * Canonical Coefficients	Standardized * Canonical Coefficients
Part-time job vs. not part-time	0.556	-0.820
Subprofession jobs vs. non-subprofessional jobs	0.534	0.644
Hours worked per week	-0.447	-0.290
Full-time job vs. not full-time	0.056	0.050

	Group Means on Discriminant Function	
Group	First Group Means	Second Group Means
Nonhandicapped dropouts	-0.4804	0.0429
Handicapped dropouts	-0.5138	0.0251
Handicapped graduates	0.0606	-0.0372
Nonhandicapped graduates	0.1187	-0.0471

* The order of the variables indicates their relative importance in the discriminant function with the first having the highest standardized canonical coefficients

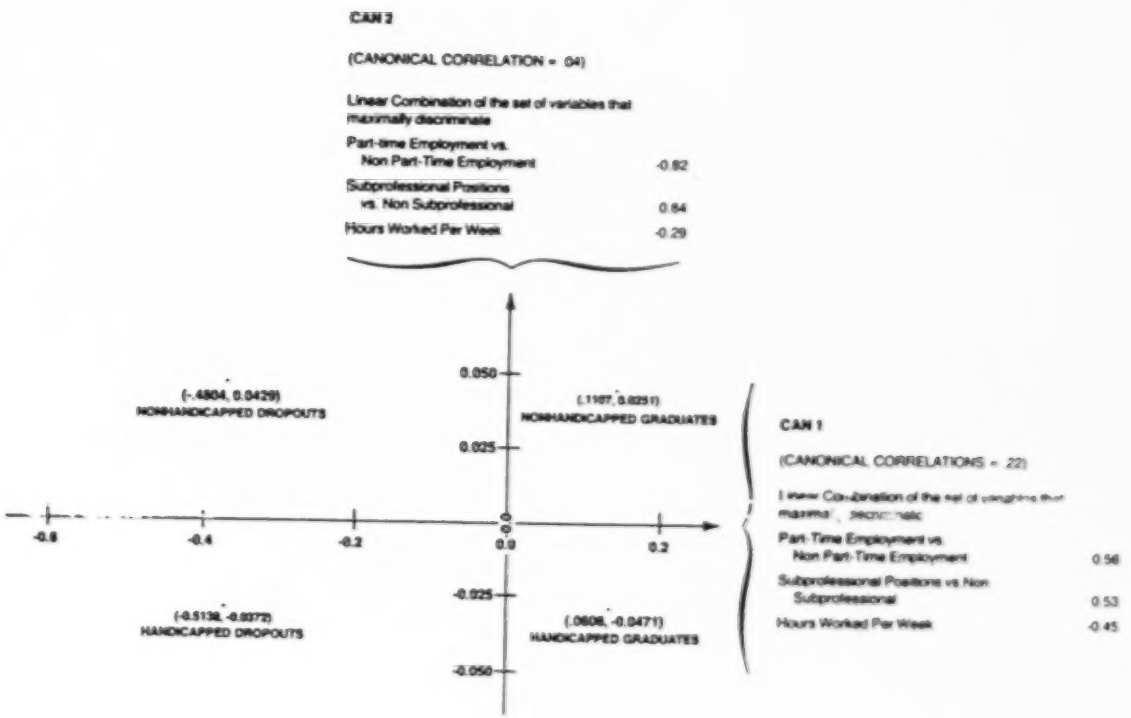

Figure 1. Spatial representation of differences among the four groups on the two principal canonical variates discriminating selected labor market variables